

MARITIME HERITAGE MINNESOTA



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Aitkin Wrecks Project 2015 Report



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Ann Merriman, Christopher Olson, and Maritime Heritage Minnesota

Acknowledgments

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Cover: The Headwaters Mississippi River in early morning.



MHM Staff, Board of Trustees, Volunteers, and Feline Mascots

Introduction

Minnesota has 674 miles (28.7%) of the 2,350 miles of the Mississippi River lying within its border. Our State has a rich and diverse nautical and maritime history in terms of submerged and maritime terrestrial archaeological sites in its portion of the waterway. Ironically, the focus of this archaeology and history is hundreds of miles above the widely acknowledged ‘head of navigation’ of the upper Mississippi – the city of Minneapolis. The Headwaters Mississippi River, particularly in Aitkin County, has proven to have abundant maritime terrestrial, nautical, and submerged archaeological resources. Prior to MHM’s projects, only one archaeological site was recognized in the river in Aitkin County, the wreck *Swan* (21-AK-84), although the *Andy Gibson* wreck was known. From data accumulated during a 2008 assessment of the wrecks *Swan* and *Andy Gibson*, Mississippi River Aitkin County Survey, and the Aitkin County Shipwrecks Project¹, MHM has acknowledged these archaeological sites: *Andy Gibson* Wreck Site (21-AK-109), Mississippi Landing Railroad Spur and Bridge Remains (21-AK-115), Mississippi, Landing Logging Pier (21-AK-116), Sandy River Steamboat Crib (21-AK-117), Red Mill Wreck (21-AK-122), Tripp Landing (21-AK-123), and the Burton & Anderson/Hodgeden & McDonald Mill and Landing (21-AK-124). These sites – wrecks and maritime and transportation infrastructure remains – are the physical representations of a vibrant waterborne trade and system that provided the only viable means of travel in this area of Minnesota until the first quarter of the 20th Century.

These Headwaters Mississippi River wrecks, *Swan*, *Andy Gibson*, and the Red Mill Wreck, along with the *J.S.* wreck in Minnesota’s southeastern Houston County, are the only known wrecks in the state’s portion of the river. In the Mississippi River outside of Minnesota, only 6 wrecks have been documented to any extent and only 24 have been confirmed to exist – one in Wisconsin, five in Arkansas, and 18 in Mississippi. Of these wrecks, three are the steamers *War Eagle* (Wisconsin), ‘Natchez Watercraft 3’ (Mississippi), and ‘3CT243’ (Arkansas); only two of them have been documented (Burt 1990; Kane 2004, 42; Stewart-Abernathy 2002, 62-101). It must be noted that the steamer wreck sites of the CSS *Arkansas* and CSS *Louisiana* are suspected to be in Louisiana’s section of the Mississippi River. However, no archaeological fieldwork has been conducted to identify the remains. Further, the passenger steamer *Sultana* sank in Arkansas in a section of the river that has since been cut off, leaving the wreck’s components under farmland and possibly buried under an oxbow lake. However, no conclusive archaeological evidence has been produced to definitively confirm the wreck’s location and at this point, any findings remain unconfirmed.

Regardless of the scarcity of known nautical archaeological sites in the Mississippi River, it is common knowledge that hundreds of vessels sank in this waterway and many have been documented only in the historical record. Interestingly, the United States Corps of Engineers (USACE) is largely responsible for the lack of known nautical archaeological sites in the river. USACE has been tasked with maintaining the river as a navigable waterway and when wrecks have acted as obstructions in the channel, they were dredged up and removed; USACE was particularly busy after the Civil War with

¹See MHM’s *Aitkin County Shipwrecks Report*, 2012, *Mississippi River Aitkin County Survey Report*, 2010, and *2008 Nautical Archaeological Assessment of Steamer Wrecks Swan* (21-AK-84) and *Andy Gibson* (21-AK-109) in Aitkin, Minnesota.

wreck removal and the organization chronicled its activities for the US War Department.² Currently then, the Mississippi River in Minnesota has three of the six confirmed steamer wreck sites identified in the entirety of the river, with two of these sites located in Aitkin. With the Red Mill Wreck (whose type is in question), three of the four known Minnesota Mississippi River wrecks are located in the Headwaters in Aitkin.

In terms of our shared Maritime History and the archaeological representations of that history – wrecks, maritime sites, other submerged cultural resources, maritime terrestrial sites – all tell a story. Removing or otherwise disturbing artifacts and damaging wrecks, treating them as commodities that can be sold, obliterates that story. Nautical and maritime archaeological sites are finite, and are significant cultural resources. Nautical, maritime, underwater, maritime terrestrial – MHM deals with all of these types of sites throughout the State of Minnesota. MHM's Mission is to document, conserve, preserve, and when necessary, excavate these finite cultural resources – within a not-for-profit paradigm – where the welfare of the sites and artifacts is paramount. MHM is concerned with protecting our underwater and maritime sites – our shared Maritime History – for their own benefit in order for all Minnesotans to gain the knowledge that can be obtained through their study. MHM's study of wrecks does not include the removal of artifacts or damaging the sites in any way. MHM does not raise wrecks or 'hunt' for 'treasure'. Submerged archaeological sites in Minnesota are subject to the same State statutes as terrestrial sites: the Minnesota Field Archaeology Act (1963), Minnesota Historic Sites Act (1965), the Minnesota Historic District Act (1971), and the Minnesota Private Cemeteries Act (1976) if human remains are associated with a submerged site. Further, the case of *State v. Bollenbach* (1954) and the Federal Abandoned Shipwrecks Act of 1987 provide additional jurisdictional considerations when determining State oversight and "ownership" of resources defined by law as archaeological sites (Marken, Ollendorf, Nunnally, and Anfinson 1997, 3-4). Therefore, just like terrestrial archaeologists working for the State or with contract firms, underwater archaeologists are required to have the necessary education, appropriate credentials, and hold valid licenses from the Office of the State Archaeologist (OSA).

²See the numerous *Annual Report of the Chief of Engineers, United States Army* made to the War Department.

The Aitkin Wrecks Project 2015

The Aitkin Wrecks Project 2015 (AWP-2015) fieldwork was conducted from late September to mid-October 2015. The goals for the *Andy Gibson* Wreck Site were to determine if the starboard side cylinder timber survived, to document that area of the wreck using terrestrial techniques, and to use underwater reconnaissance to fill in gaps that exist in the archaeological site plan. In relation to the Red Mill Wreck, the main objective was to locate what MHM believed to be the bow of the wreck and document the area, also using terrestrial archaeological methods, and augment the current site plan. Also, a condition assessment of the *Swan* Wreck would be conducted, dependent on river water levels. Further, MHM planned to conduct manual probing and visual inspections of the area to the southeast between the Red Mill Wreck and the mouth of the Ripple River. An informant believed he had seen another site or wreck nearer the mouth of the river in the 1960s, partially uncovered in shifting silt. MHM spent three days on each wreck conducting the maritime terrestrial investigations, one additional day on the *Andy Gibson* Wreck for the underwater portion of the project, and parts of two days investigating the area where the possible site may exist near the Ripple River and near the *Swan* Wreck.

MHM has been documenting the *Andy Gibson* Wreck Site since 2008 in the Headwaters Mississippi River in Aitkin. The wreck is a partially dry nautical site with areas that are always submerged, and the hull rests on a dry dock cradle. *Andy Gibson* was launched in 1884 and abandoned at her moorings in 1894. The starboard side of the wreck is intact amidships and aft, and is imbedded in the riverbank with no surviving superstructure. During low water, the wreck is exposed out to her centerline. MHM successfully nominated the *Andy Gibson* Wreck Site to the National Register of Historic Places in 2012.

In 2008 during low water conditions, MHM discovered evidence of an archaeological site or sites located just to the northwest of the mouth of the Ripple (Mud) River in a siltbank of the Headwaters Mississippi River. In 2012, MHM concluded that a wreck site, along with other archaeological remains, existed in the area. MHM determined that the Red Mill Wreck, named after the nearby G.W. Knox Saw and Planing Mills once located on the riverbank, is a wooden-hulled boat of unknown nature. Historical records indicate the steamer *Walter Taylor* sank near the mouth of the Ripple River in 1899, but archaeological investigations in 2012 and 2013, while collecting much valuable data, have not proven that the Red Mill Wreck is a steamer.

Fieldwork

***Andy Gibson* Wreck Site (21-AK-109)**

On September 30 and October 1, 5, and 19, 2015, MHM conducted fieldwork on the *Andy Gibson* Wreck Site. The Mississippi River level was not high, but not as low as preferred to perform this type of investigation. Fortunately, the water level dropped slightly during the project. Firstly, MHM cleared weeds and shaped earthen steps out of the riverbank to allow access to the wreck site. The plan for locating the possibly surviving cylinder timber involved opening Test Trench 5 next to Trench 1, first opened

in mid-October 2010 during high water conditions.³ Trench 5 is 5 feet long and three feet wide, extending westward off of Trench 1. During the first day of documentation, MHM, MHM uncovered deck beams and decking, and connected Trench 5 with Trench 1. On day 2, sandbags MHM had placed in Trench 1 during backfilling were removed from the top of the trench on its left side to fully expose the connection between the two trenches. Further removal of silt and mud revealed the wreck's starboard aft quarter. Components uncovered include the rubrail, gunwale, clamp, futtocks, deck beams, deck planks, and the bottom section of the outboard cylinder timber that has two rods bent over it into V-shapes. On day 3, MHM extended the north end of Trench 1 by 1 foot, removing the baulk that had been left in place in 2010. The lowest part of the outboard cylinder timber continued into Trench 1, and deck planking and deck beams that had been under the baulk were revealed. Like Trench 2 (opened in 2010 and re-opened in 2011) and Trench 3 (opened in 2011), the wreck's intact deck planking in Trenches 1 and 5 is a rare attribute to survive in a Mississippi River steamboat wreck. Photographs from 1967, taken during low water conditions, clearly show the complete starboard side cylinder timber. The survival of even a small section of this attribute is significant, and data acquired in 2015 greatly assists MHM in planning future investigations of the starboard side aft section of the wreck embedded in the riverbank. MHM placed empty sandbags and orange tape over the exposed wreck components in Trench 5 to warn future researchers where the documented portions of the site lie. MHM backfilled the trench to protect the wreck from damage.



In 1967, Andy Gibson's starboard cylinder timber existed and was *in situ*. The location of Trench 5 is indicated by the red arrow (Aitkin Historical Society). Inset: Andy Gibson (Itasca Historical Society).

³See MHM's *Andy Gibson Excavation and NRHP Nomination Report*, 2010.



Left: The riverbank prior to opening Trench 5 and expanding Trench 1. The large cut tree stump hanging over the water is the remains of a tree that fell onto the wreck in 2013. See MHM's Andy Gibson Wreck (21-AK-109) Fallen Tree Mitigation Report, 2013, for details.



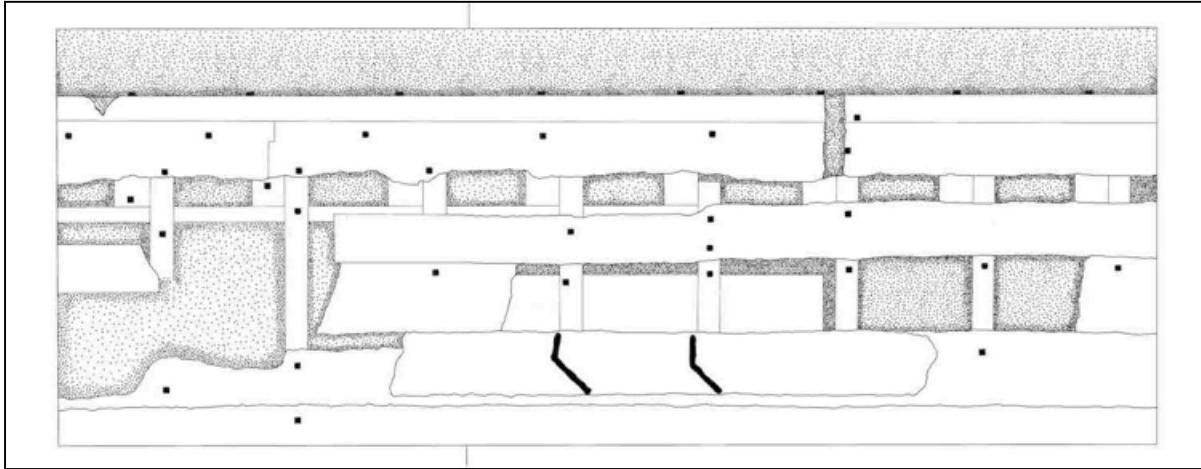
Right: Trench 5.



Left: The northern part of Trench 1. MHM opened up and expanded Trench 1 that was first opened in 2010. Note the green sandbags that filled the test trench near the wreck. MHM placed the sandbags in the trench prior backfilling.

Below: Trench 1 on the left and Trench 5 on the right. The timber with the iron rods bent over it is the bottom portion of the starboard cylinder timber.





Trenches 5 (to the left) and 1 (on the right), delineated by the vertical lines outside the trenches. This plan also incorporates the south part of Trench 1 that was documented in 2010 and not uncovered in 2015. The river channel would be to the top of the image.



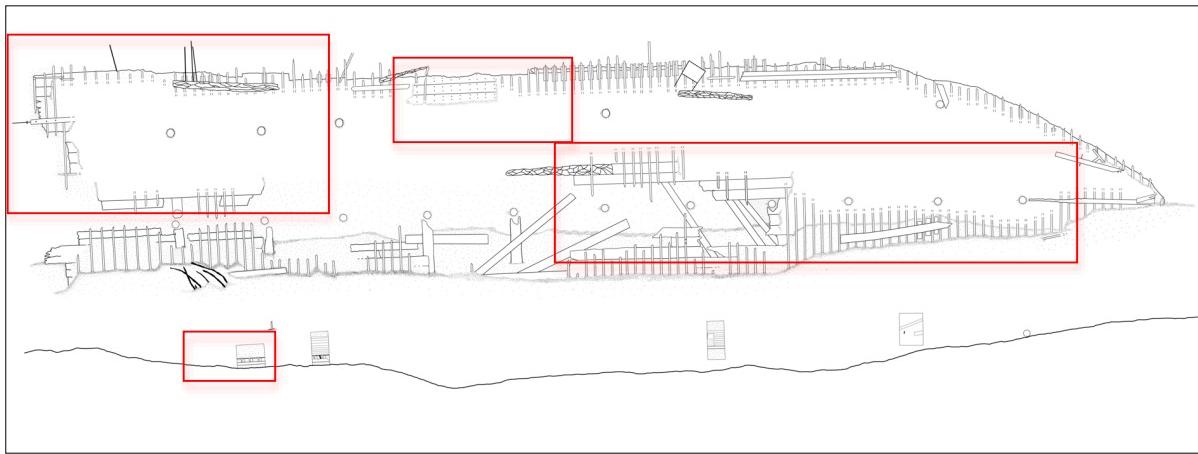
MHM placed orange tape around all wreck components before backfilling Trenches 1 and 5 in order to indicate that the area has been disturbed and to warn future researchers where the wreck lies. MHM also placed filled and empty sand bags onto certain wreck attributes for their protection.



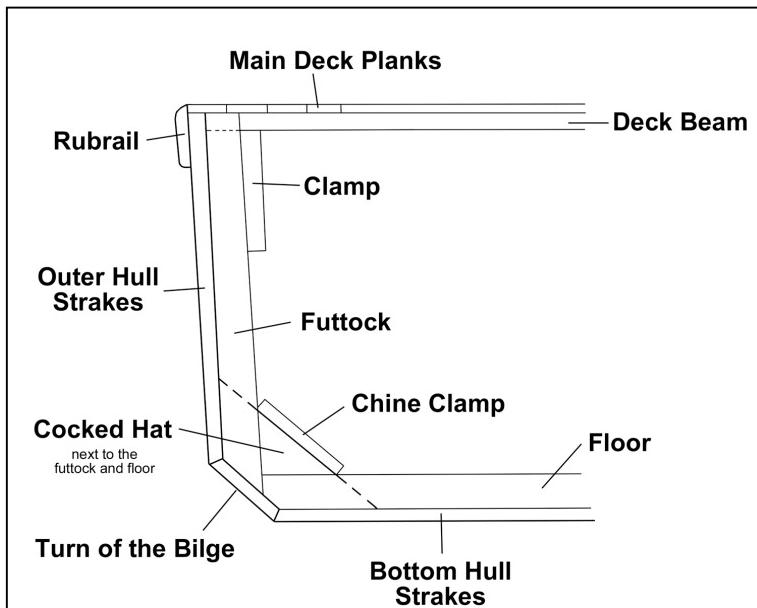
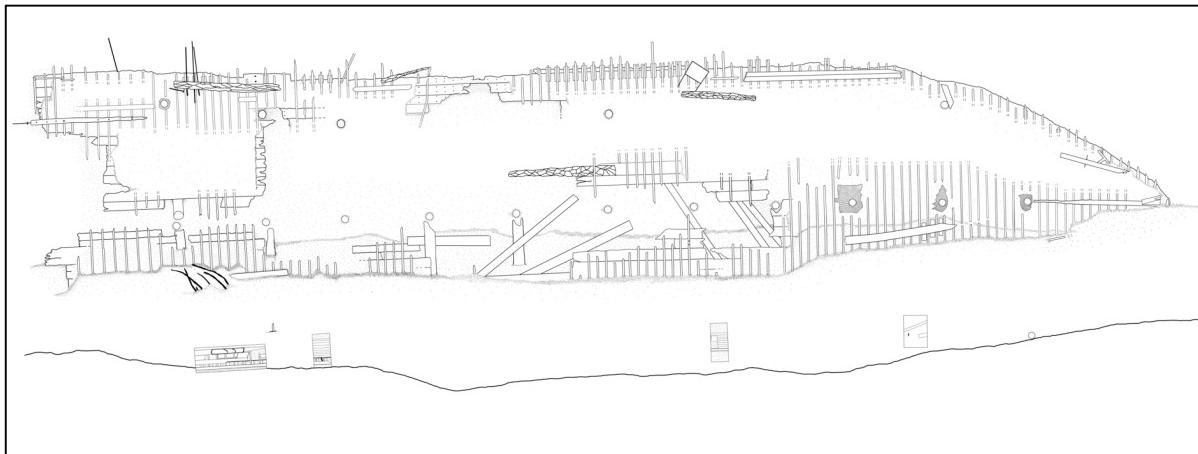
Trenches 1 and 5 backfilled. Inset: Left: MHM encountered artifacts in the matrix above the *Andy Gibson* in Trench 5. Nails, wire, and glass. The artifacts were wrapped in orange tape and placed back into the trench before backfilling.

On day 4 of the *Andy Gibson* documentation, volunteers Kelly Nehowig and Mark Slick joined MHM to perform underwater reconnaissance of the port side of the wreck. MHM documented the extreme port edge of the wreck site in 2012⁴ during low water conditions, but sections of the wreck on the port side nearer the shoreline remained undocumented. Headwaters Mississippi River water levels were slightly below normal in mid-October but not low enough to provide optimum conditions for underwater filming. Because of the water depth, the current was rather strong, and filming took place both while traveling downstream and upstream.

⁴See MHM's *Aitkin County Shipwrecks Report*, 2012.



Above: MHM's *Andy Gibson* Site plan incorporating data collection from 2008-2012. The bow is to the right and the stern is to the left. The wreck is 132 feet long and 35.5 feet wide at her widest point. The four long objects with texture are snags stuck on or under the wreck. The small rectangular object with legs is an old metal sign. The red squares indicate where MHM augmented the site plan with 2015 data. See the new site plan below.



This profile of the starboard side of the *Andy Gibson* Wreck indicates the proper position and shape of the steamer's original construction. This diagram is a useful tool for identifying the wreck's surviving structural components.

The Red Mill Wreck (21-AK-122)

On October 2, 3, and 4 2015, MHM conducted fieldwork on the Red Mill Wreck Site. As with the *Andy Gibson* Wreck site, the Mississippi River level was not high and the wreck is encased in a siltbank that was mostly out of the river channel. Firstly, MHM cleared the private road⁵ that leads to the river; three trees had fallen over the road since our last visit to the Red Mill Wreck in 2013. MHM's plan for 2015 fieldwork on the Red Mill Wreck focused on locating the bow of the vessel where it was theorized to be, to the south of the sections documented in 2012 and 2013.⁶

During the first day of documentation, MHM conducted a shovel test to the south of Trench 1 in an attempt to locate the bow of the wreck. The matrix is comprised of small stones, clay, and roots. Instead, MHM uncovered logging spikes⁷ in the matrix and pedestaled the artifact, but did not locate the wreck lower than that point. MHM moved to the north of the shovel test and opened Trench 4 and extended it to the southeast corner of Trench 2. Within 18 inches of the siltbank's surface, MHM located the wreck and began removed the matrix above it. Like Trenches 1-3, Trench 4's clay matrix changed to a light gray color just above the wreck – a warning to MHM that wooden components were just underneath. The wreck's wood was fragile, soft, and undulating due to the rising and falling of the river level over the decades. Many nautical attributes have survived and are recognizable in Trench 4, particularly the wreck's ceiling planking, the floors underneath the planking as suggested by humps in the undulating planks, and the iron nails attaching them together. In the northern end of the trench, a gopher hole is clearly seen as a path along the top edge of the ceiling planking and exiting the trench to the east. At the end of the first day of investigation on the Red Mill Wreck, MHM extended and squared out Trench 4 to envelop the shovel test to the south. The trench measured 10.50 feet extending north-south and 2.00 feet from the east-west.

On day 2, MHM continued cleaning the matrix from above and on the surface of the wreck's components and removed the logging spikes from the shovel test area. Another complete logging spike was located in the matrix above Trench 4, along with partial spikes, metal loops, chain, and fasteners. Nine pieces of coal were also located strewn throughout the matrix above the wreck. The ceiling planking survived throughout the trench, with the exception of a few areas that expose the outer hull planking and the floors (boat frames attached to the bottom of the wreck). A large athwartships timber at the south end of Trench 4 was uncovered, with sterile clay beyond it indicating this area constituted the site's perimeter. MHM opened Trench 5 to the east to follow this timber since it appears to be the 'bow' end of the wreck. It is apparent that the Red Mill Wreck has at least one scow end.

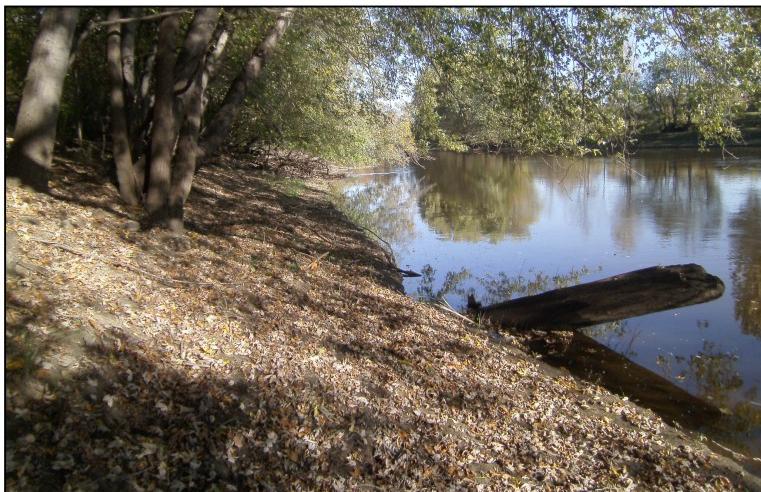
On day 3 of fieldwork on the Red Mill Wreck, MHM cleaned the components and defined the edges of the planks. At the northeast corner of Trench 4, it was determined the ceiling planks and outer hull planks have not survived, indicating the wreck has a

⁵The road is privately owned and MHM has permission to use the path to reach the Red Mill Wreck, *Swan* Wreck, and other archaeological remains in the area.

⁶See MHM's *Aitkin County Shipwrecks Report*, 2012, and the *Red Mill Wreck Report*, 2013.

⁷Logging spikes are short, sharp pieces of metal attached to each other by a small length of chain. Loggers used them to attach to logs to each other during a logging drive.

hole in her bottom at that point or a section of the wreck has been destroyed. Further investigation in this area is required to determine the nature of the site at this point. MHM measured, drew, and photographed Trenches 4 and 5, and photographed the small finds. MHM placed empty sandbags and orange warning tape over the exposed wreck components in Trenches 4 and 5 to warn future researchers where the documented portions of the site lie. The small finds were wrapped in orange tape and placed into the trench before they were backfilled to protect the wreck from damage.



The area where the Red Mill Wreck is located in a siltbank in the Headwaters Mississippi River.



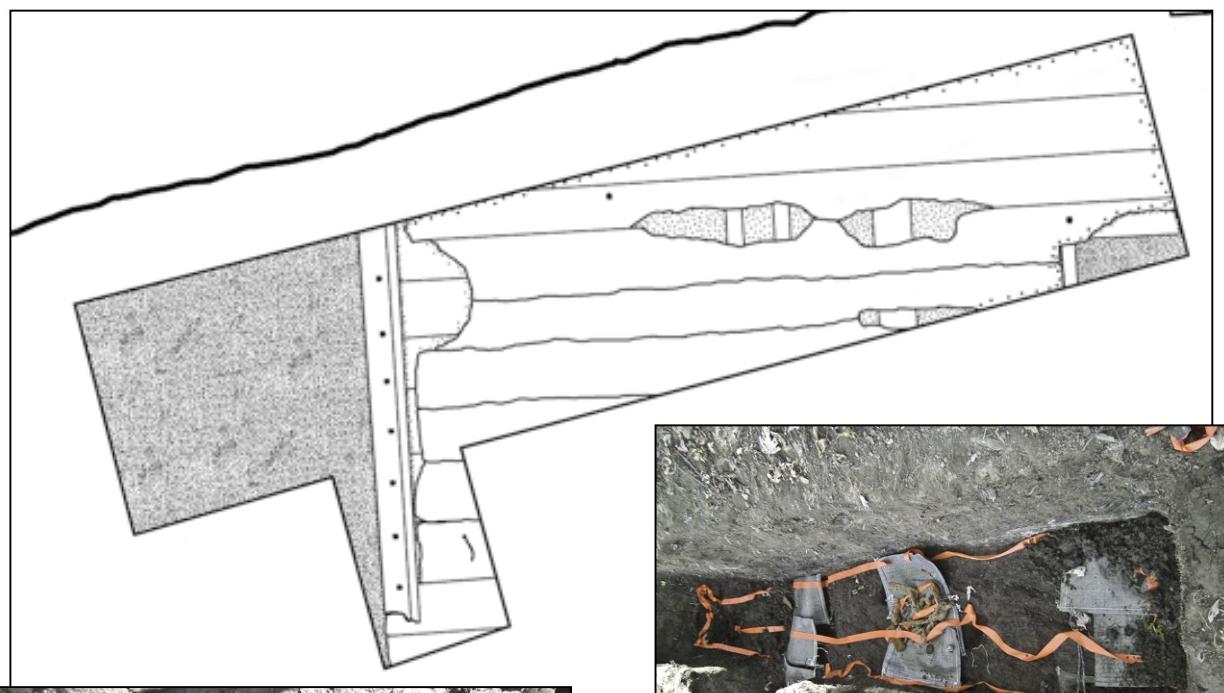
Trenches 4 and 5. Trench 4 is the long section that extends beyond the end of the wreck. Trench 5 is the small trench extending to the east toward the river channel.



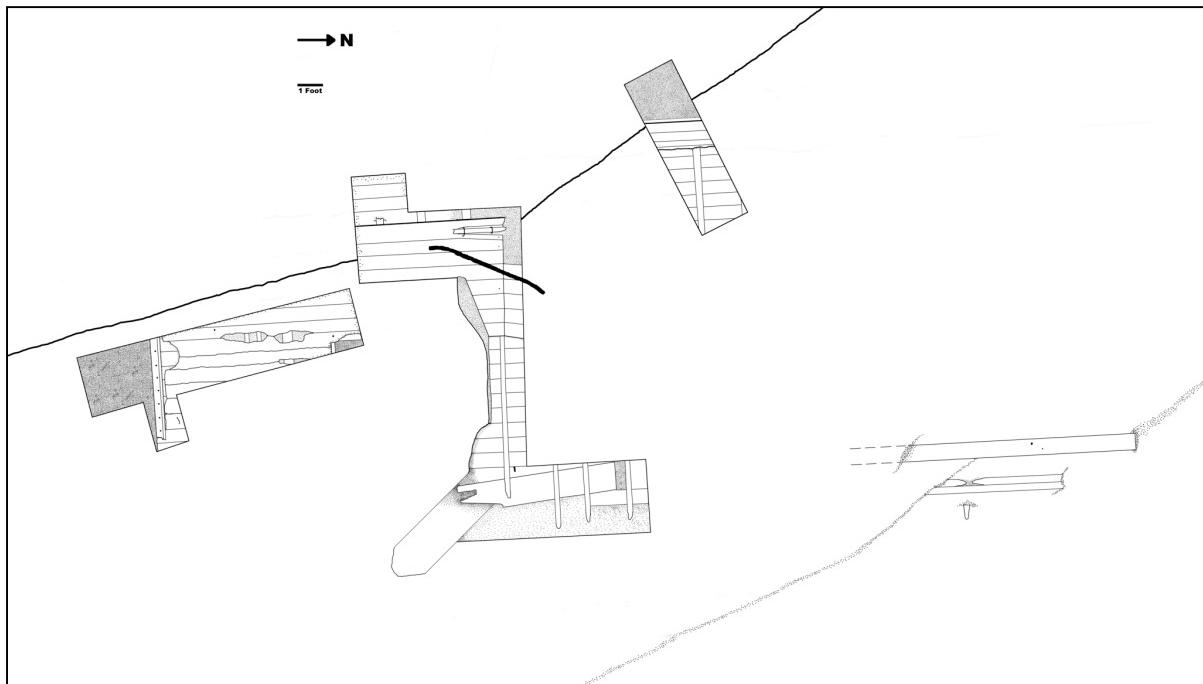
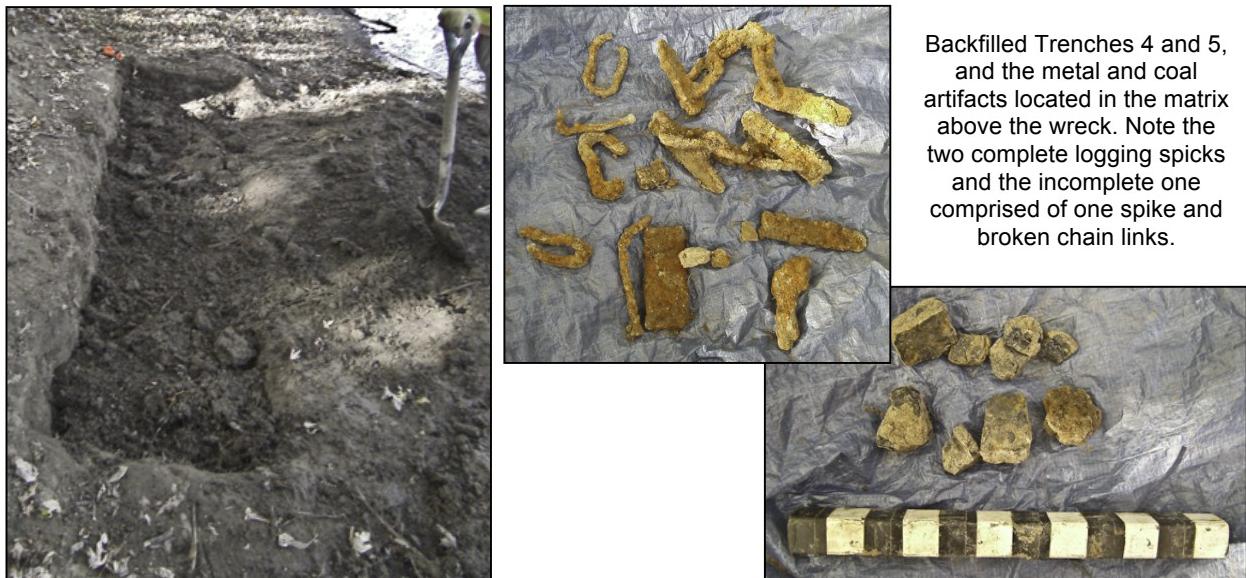
Trench 4 with its southern edge not included. Note the hole in the ceiling planking on the right side of the photograph where the outer hull has deteriorated.



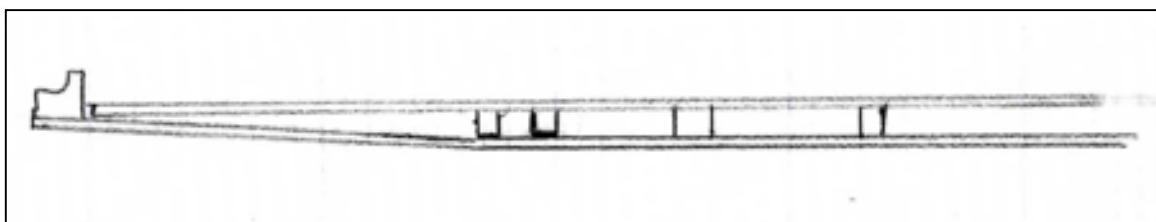
Trench 5 and the southern portion of Trench 4. The large beam that runs through Trench 4 into Trench 5 is the scow end of the Red Mill Wreck.



A drawing of Trenches 4 and 5 as it appears on the 2015 Red Mill Wreck Site plan. Orange warning tape and empty sandbags were placed in Trenches 4 (left) and 5 (above) prior to backfilling.



The Red Mill Wreck Site plan with the 2015 additions, Trenches 4 and 5, added to the left side of the image.



A sketch of the wreck's end in profile as seen in the south end of Trench 4 and in Trench 5. Note the slight rake of the vessel's end.

Possible Wreck Site

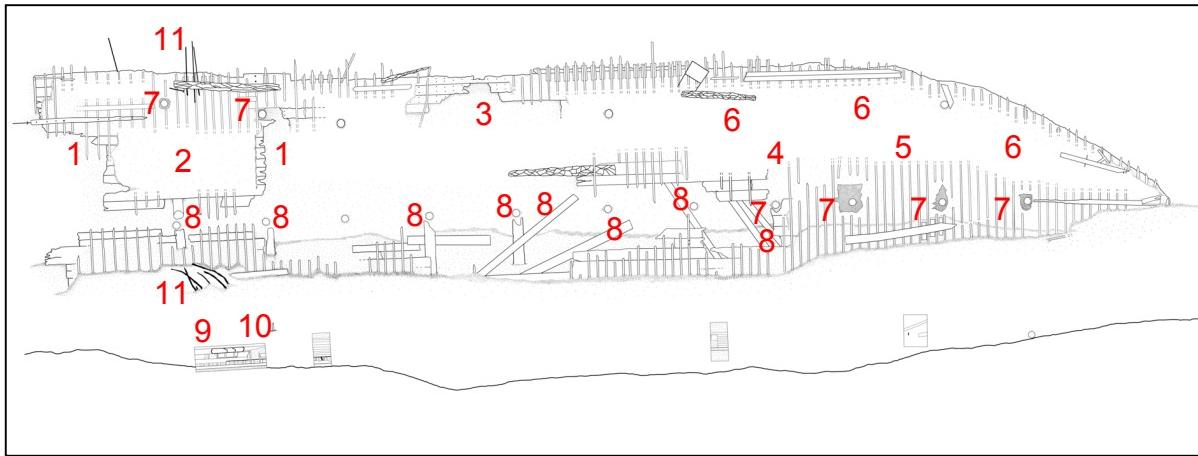
On one day, MHM conducted manual probing and visual inspections of the siltbanks and accumulated Headwaters Mississippi River sediment between the Red Mill Wreck and the mouth of the Ripple River. To the northwest of the *Swan* Wreck, where MHM had conducted a walking survey in 2008 during low water conditions,⁸ the area directly to the northwest of the Ripple was difficult to probe, with several feet of built-up sediment and gravel in the area. Further to the northwest toward the Red Mill Wreck, evidence of archaeological remains noted in 2008 were re-located in the siltbank and the riverbank.

Fieldwork Analysis

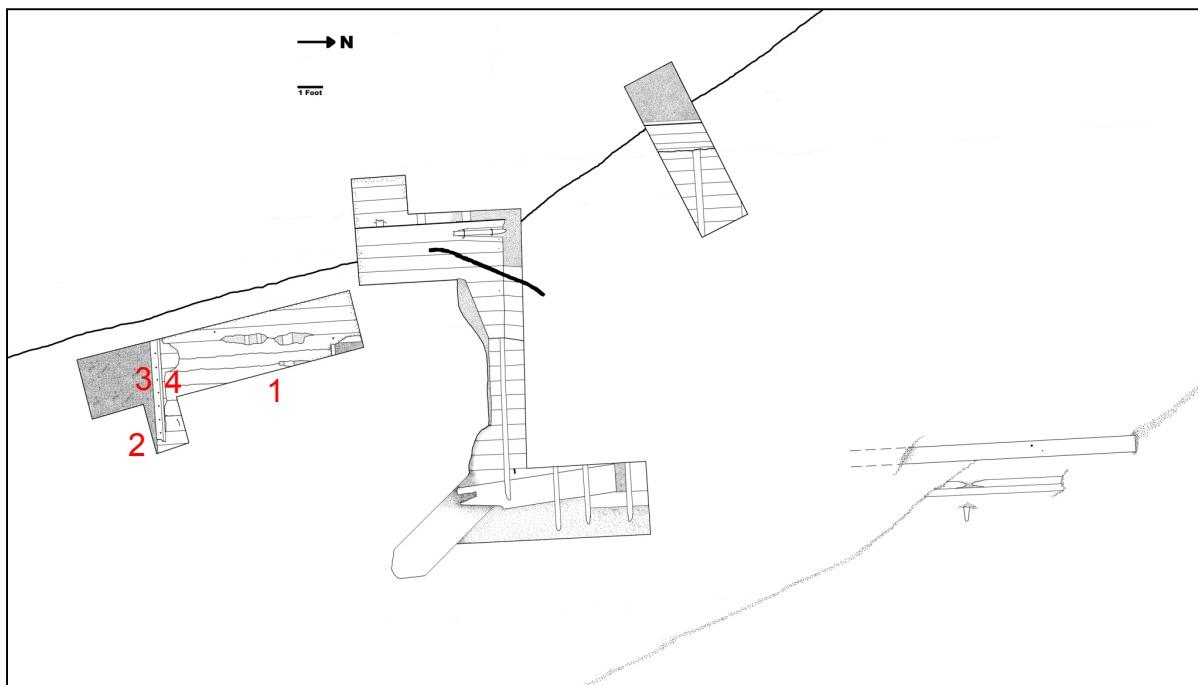
Andy Gibson (21-AK-109). MHM used the data collected during the AWP-2015 and augmented the existing *Andy Gibson* Site plan, filling in approximately 30% of the area of the site that is continuously underwater. Outer hull planks port of the centerline in the stern area have been documented at their forward and aft edges, indicating what has survived in this wreck section (1, see the site plan below). Gaps still exist in the documentation these planks, but they are likely intact under river sediment and can be confirmed in the future (2). On the port side amidships it was determined that some outer hull planks thought to have survived complete are actually fragmentary (3), but more planks were confirmed to exist toward the centerline and forward (4). Toward the bow, down the wreck's centerline, MHM was able to document the floors beyond the centerline from the starboard to the port side of the wreck (5). This area will be studied in the future during lower water to confirm the condition of the wreck in this section and fill in gaps in the site plan (6). MHM also clarified the extent of bottom hull damage caused by the settling of the wreck onto her drydock cradle and certain pilings that has been on-going since 1892. The pilings, shown as the round features throughout the site plan, have protruded through the bottom of the wreck (7). The drydock cradle beams that supported *Andy Gibson*'s hull survive and are exposed throughout the wreck site where sections have slid off the beams or broken off from the weight of the vessel (8). Trench 5 (9) and the newly uncovered components in Trench 1 (10) were also added to the plan. The remains of the cylinder timber line up with the metal engine rods (11) that survive on both the port and starboard quarters. A deck beam, one in good condition, was measured and found to be 2 inches sided by 3 inches molded.⁹ The 2015 additions, in their entirety, clarified the nature of significant sections of the submerged port side quarter and the starboard side quarter imbedded in the riverbank. However, the undocumented submerged portions of the port side and centerline of the wreck, and the starboard side imbedded in the riverbank, offer many opportunities to answer questions about the complete nature of the site. MHM filed an archaeological site update for the *Andy Gibson* Wreck Site with the OSA.

⁸See MHM's 2008 *Nautical Archaeological Assessment of Steamer Wrecks Swan (21-AK-84) and Andy Gibson (21-AK-109)* in Aitkin, Minnesota for photographs of archaeological resources and artifacts located in the area.

⁹In a plan view, the sided dimension of a beam is the horizontal edge and the molded dimension is the vertical edge. During previous projects, MHM has been unable to obtain exact measurements for the wreck's deck beams due to the fragmentary nature of exposed beams and in many places, the deck beams are covered by deck planking.



Red Mill Wreck (21-AK-122). Trenches 4 (1, see the site plan below) and 5 (2) on the Red Mill Wreck, opened during 2015, produced the data that MHM proposed would be identified during this field season – the location and nature of one end of the vessel. MHM contends that a beam larger than the others and running athwartships, with sterile clay along its outer edge, is the scow end of the wreck (3). The bottom hull planking and ceiling planking are intact where they connect with this athwartships beam (4). The ceiling plank ends butt up to the beam and the outer hull planks slant upwards to meet it. It is apparent that the outer hull staves that would make up the boat's end, whether it is the bow, stern, or if she is double-ended, have been detached or not survived. MHM has surmised in previous reports¹⁰ that the Red Mill Wreck could be the sternwheel steamer *Walter Taylor*, a ferry, or a wanigan. Evidence documented to date includes vessel attributes and associated artifacts that suggest the wreck could be a steamer or wanigan – or a barge – but probably not a ferry.



¹⁰See MHM's *Aitkin County Shipwrecks Report*, 2012, and the *Red Mill Wreck Report*, 2013.

Usually, wooden river ferries had narrow beams, often slightly wider than a wagon. The Red Mill Wreck has an estimated minimum – and likely wider – beam of 16 feet. For comparison, two ferry wrecks documented archaeologically in the Northeast Cape Fear River near Castle Hayne, North Carolina, have beams of 9.98 feet and 10.00 feet respectively (Watts and Hall 1986, 26, 30). Further, the beam of *Walter Taylor* was reported to be 15 feet (*Aitkin Age* 1895c), slightly too narrow for the Red Mill Wreck. However, since the wreck's probable beam is an estimation at this point, further documentation of certain areas of the site are required to answer this question with confidence. MHM's working hypotheses after the 2015 fieldwork season is that the Red Mill Wreck is probably a wanigan, possibly one towed on the Headwaters Mississippi River by *Walter Taylor* for the Northern Boom Company (*Aitkin Age* 1896, 1897), or a barge meant to carry cargo.



Above: The Wold Ferry on the Headwaters Mississippi River located about 9 miles south of the confluence with the Swan River.

(Both photographs courtesy of the Aitkin County Historical Society)

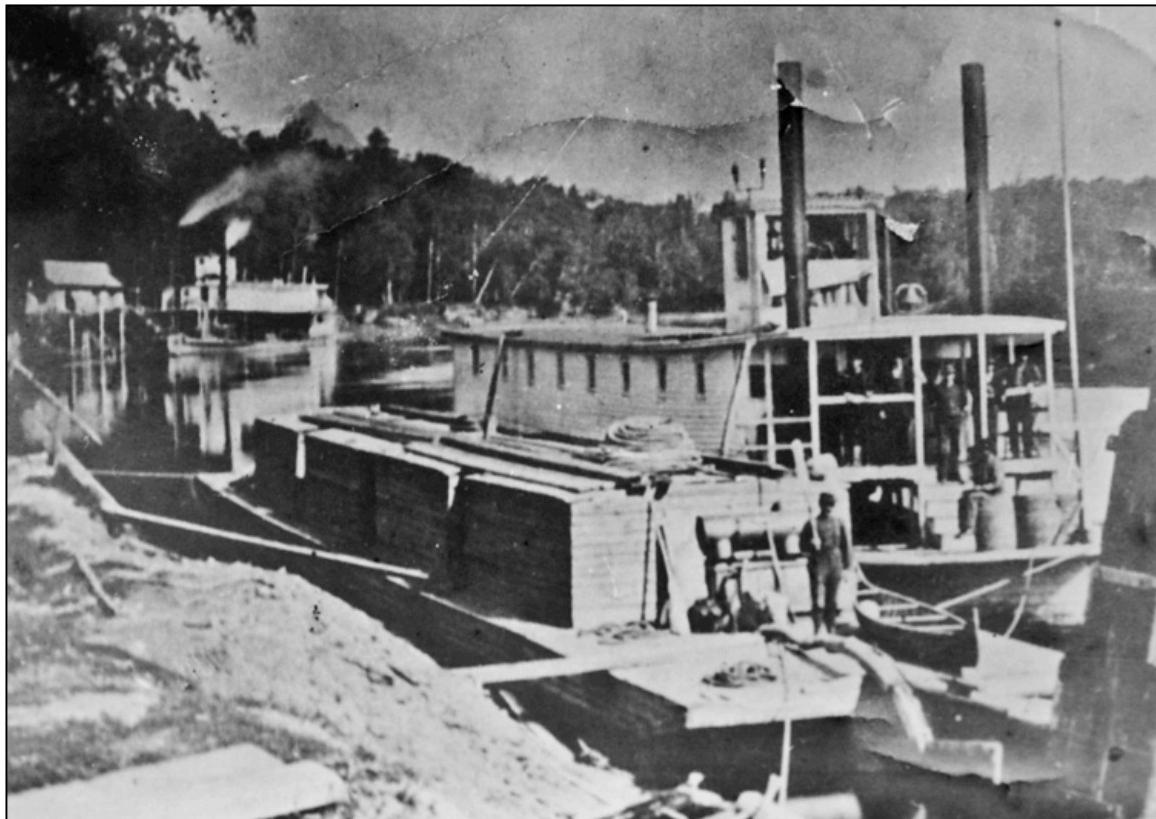


Right: The Putney farm with two wanigans and the steamer *Irene* moored on the river.

Steamers towed cargo barges on the river in Aitkin County throughout the 1880s and 1890s. Newspaper references reported that the *City of Aitkin*, *Fawn*, and *Swan* towed either one or two barges behind them between Aitkin, Sandy Lake, and Grant Rapids. Cargoes included tons of lumber, brick, hay, potatoes, and at least two horses, with some freight on board the barges weighing up to 40 tons and 60 tons. In one instance, the steamer *Fawn* towed what the newspaper referred to as "two large barges" from Aitkin to Grand Rapids in late September 1886. One of the barges is specifically referred to as a "large wanigan, loaded with lumber" and once in Grand Rapids, the W. Potter Company (the last owner of the *Andy Gibson*) took possession of the vessel. Their intention was to use the wanigan as a ferry in Grand Rapids; whether it was going to ferry freight on the river or carry people across the river is unknown (*Aitkin Age* 1883, 1884, 1885a-c, 9.4.1886a-c, 1887, 1893, 1895b; *Aitkin Republican* 1898).

Wanigans were most often constructed where the timber was felled, often on a frozen lake just prior to the Spring logging drive. These vessels followed a lumber drive and larger drives could have up to three wanigans used to provide food, supplies, and lodgings for the workers. One historian determined Minnesota lumbering wanigans were about 10 feet wide and 20 feet long. Contemporary wanigan photographs suggest this estimate is relatively accurate, although in many instances some wanigans appear to have wider beams. Often wanigans were dismantled once they made one trip downriver during a logging drive and their components recycled. If a wanigan had a substantial

cabin-like structure instead of a simple tent on its deck, often the cabin would be removed and used as a small house or shed on land. Also, wanigans were dismantled and loaded onto flat railroad cars and delivered north for another log drive (Aitkin County Historical Society 1995, 18; Ryan 1980, 7-9, 1976 10). However, this practice may not have been the norm for Aitkin County, at least in many documented instances. Historical accounts of wanigan use in Aitkin County from 1889 to 1900 indicates that these floating cook and bunkhouses were re-used by the lumbering companies driving logs down the Headwaters Mississippi River. One Northern Boom Company wanigan, while moored on the north side of the river in Aitkin across from the Hodgeden & McDonald Mill¹¹ in late March 1889, burned and was destroyed (*Aitkin Age* 1895a). The fact that the wanigan was in Aitkin and not on the river further north suggests the vessel had been used previously, either further south and brought to Aitkin or it wintered in Aitkin.



The steamer *Fawn* and her barge moored in Aitkin. This towed vessel may be an example of what the *Aitkin Age* referred to as "large wanigan, loaded with lumber". *Andy Gibson* is in the background. MHM has determined that *Fawn* is moored at the G.W. Knox Saw and Planing Mills - the Red Mill. The Red Mill Wreck now lies between the location of the *Fawn* and the *Andy Gibson* in the image (HE5.11Fr2, Minnesota Historical Society, digitized by MHM).

Another report of wanigan use – and re-use – is linked to the Brainerd-based steamer *Lottie Lee*. She towed a wanigan and two bateaux¹² to Aitkin "after a successful run up river" (*Aitkin Age* 1889). This specific statement about transporting a wanigan from

¹¹See MHM's *Aitkin County Shipwrecks Report*, 2012, for more on the archaeological site Burton & Anderson/Hodgeden & McDonald Mill & Landing (21-AK-124).

¹²In the context of the Headwaters Mississippi River, bateaux are small rowboats with pointed and tapered ends used as lighters and for local transportation during a lumber drive.

Brainerd to Aitkin – upriver – indicates that the floating bunkhouse or cookhouse was not dismantled after one use. The wanigan may have been transported upriver for a future Spring drive or for another unknown purpose. Similarly, the steamer *Swan* left Aitkin for Brainerd in service of the "Boom Company" in order to tow their wanigan through the entirety of Aitkin County to Grand Rapids in Itasca County (*Aitkin Age* 1895d). Two weeks later, the *Swan* made news again, when it was reported "The Minnesota Boom company's steamer arrived yesterday afternoon with a wanigan and two bateaux, having made the trip up the Mississippi from Aitkin to Grand Rapids in five days. There was a crew of eight men, the wanigan in charge of James McCarthy, who said that while they did not have any mishaps, still they had plenty of work on the way up. They poled the wanigan to shore and made a landing easily at the Knox warehouse" in Grand Rapids (*Aitkin Age* 1895e).



Various Minnesota wanigans, including one with a tent enclosure instead of a cabin.

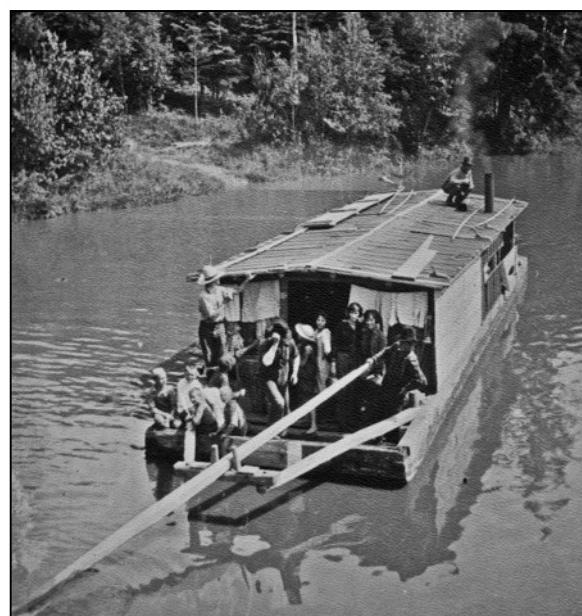
Above Left: HD5.41p11

Above Right: HE5.41p76

Below Right: HD5.41p78

Below Left: HD5.41r1

(Minnesota Historical Society, digitized by MHM).



This undertaking, towing wanigans from Brainerd to Grand Rapids, occurred relatively often considering log drives occurred during the months after the river ice came out. *Walter Taylor* towed two wanigans from Brainerd to Grand Rapids in late April 1896 that also marked the inaugural use of the new Aitkin swing bridge. In mid-June 1897, *Walter Taylor* repeated the trip with one wanigan in tow. This instance is particularly informative since it mentions that the logging crew was comprised of 32 men in charge of foreman Ben Clark. Again, in mid-June 1898, *Walter Taylor* towed a wanigan upriver and it was

used as a barge to transport a logging drive crew. It was reported, "the steamer *Walter Taylor* of Aitkin, Commodore W. S. Cluff, tied up at the spot where Knox's warehouse stood before the cyclone struck it. The steamer had in tow the boom company's wanigan containing Foreman Dan McMahon and crew, who will take down a drive from the upper river. The steamboat left the same day" (*Aitkin Republican* 1896-1898). This entry is significant for MHM's research since it indicates that the Knox warehouse – the location of the Red Mill – was gone by mid-1898. Another instance of a wanigan heading upriver in mid-1900 occurred when the new steamer *Irene*, like *Lottie Lee*, *Swan* and *Walter Taylor* before her, towed a wanigan from Brainerd to Grand Rapids (*Aitkin Republican* 1900).



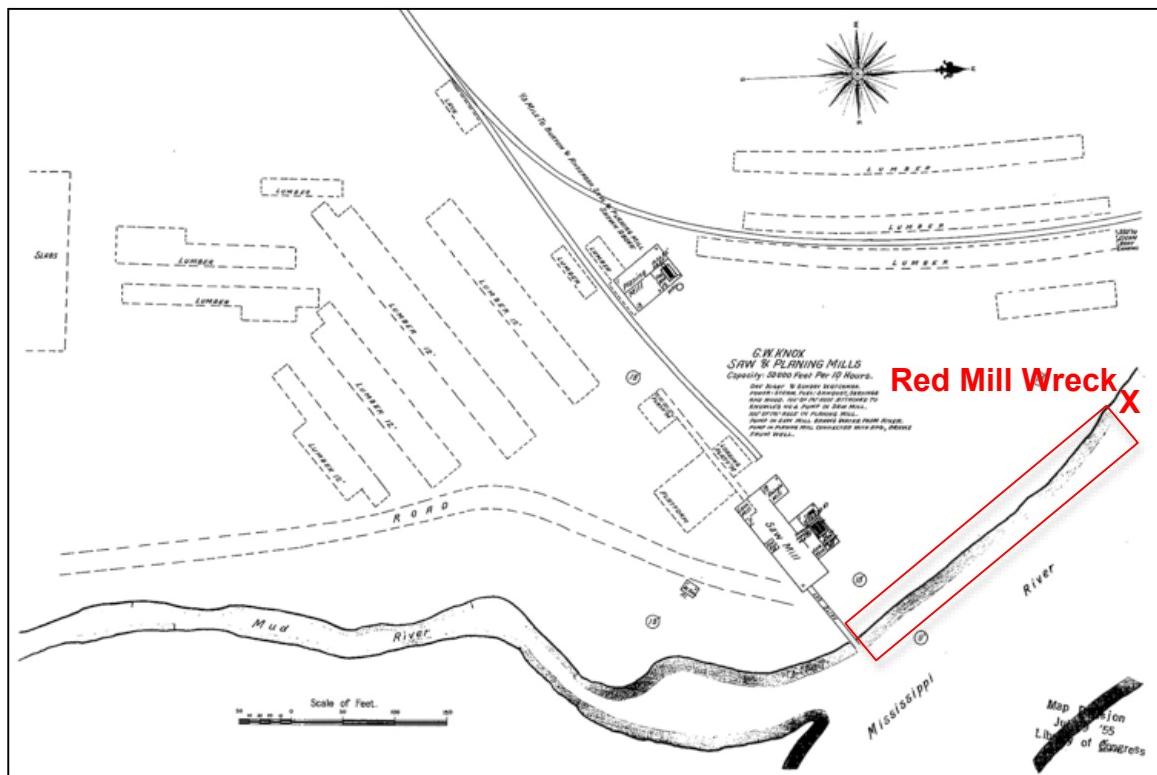
A beached wanigan and a drive crew (36-C, Minnesota Historical Society, digitized by MHM).

These accounts of barges and wanigans used during the latter decades of the 19th Century into the early 20th Century in the Headwaters Mississippi River differ from the norm. They are indicators of unexpected use of wanigans in terms of their re-use on logging drives, their use as passenger barges, and in one instance a conversion into a ferry. Use of barges as cargo carriers towed by steamers is a common practice on our nation's rivers, as well as their use as excursion vessels to double or triple the towing steamer's passenger capacity. Continued documentation of the Red Mill Wreck is required to determine the nature of the site and to answer the many questions MHM could answer with more data. MHM filed an archaeological site update for the Red Mill Wreck with the OSA.

Possible Wreck Site. Every lumber mill located on the river in Aitkin during the 1880s into the early 1900s had rudimentary docks or walkways in the river channel. These structures assisted workers in dealing with logs running down the river and securing watercraft. The docks or piers in this section of the Headwaters Mississippi River were not large constructions or meant to be incredibly sturdy or permanent, unlike the Sandy River Steamboat Crib Site (21-AK-117),¹³ since steamers most often used gangplanks for the off-loading of cargo and passengers. These mills also had log slides or chutes leading to the river that served as infrastructure for logging enterprises. It is apparent that some of the archaeological remains lying to the south of the Red Mill Wreck are related to the logging and lumbering undertaken at the G. W. Knox Saw and Planing Mills. A wooden structure, imbedded in the riverbank, is held together by an iron plate with 5 large bolts. It resembles the planks or decking of a boat that are attached to an

¹³See MHM's *Mississippi River Aitkin County Survey Report*, 2010.

underlying wooden piece that suggests a deck beam. However, this construction might also be a dock or possibly a logging slide or chute. This feature was located in 2008 and re-located in 2015. A concrete plinth above this area is evidence of maritime infrastructure once located on the riverbank that supported the mill operation. Additionally, a decayed timber found jutting out of the riverbank in 2008 was re-located in 2015. Unfortunately, water levels were too high in early October 2015 to associate a spread of bricks that were exposed in 2008 to the wood and metal feature in the riverbank. The bricks could suggest a steamer wreck, as part of its firebox, or construction debris from a building on the riverbank. The concentration of the bricks in one spot in the river channel suggests the firebox hypothesis is more likely. Shovel testing of this area is necessary to answer questions about the obvious archaeological remains located here; probing was not sufficient to answer any questions. Low water conditions are necessary for an effective investigation.



The G. W. Knox Saw and Planing Mills were located at the confluence of the Mississippi and Ripple (Mud) Rivers (Sanborn Fire Insurance Map, 1892). Archaeological remains are scattered through the red rectangle.



The wooden structure seen in 2008 (left) and in 2015 (right), with the iron plate and five bolts visible.



The concrete plinth from two directions, with a tree growing around it. The plinth is up the riverbank just to the southwest of the wooden structure with the metal plate.



The decayed timber jutting out from the riverbank. It has degraded since 2008.



This spread of bricks, seen here in 2008, is only exposed during very low water south of the Red Mill Wreck.

Conclusion

In order to continue investigating Aitkin County's nautical and maritime archaeological sites, MHM will design projects that will utilize both underwater and terrestrial documentation techniques when funding is secured. River water levels are always a consideration in the project design process due to the soft wood Headwaters Mississippi River wrecks are comprised of, particularly since careless excavation can easily destroy these large complex artifacts. Traditional underwater excavation techniques that employ water dredges or airlifts will, in effect, tear apart the wrecks. When using SCUBA, MHM cannot use these methods, but careful cleaning of certain areas utilizing the river current allows documentation using triangulation, measured drawings, and digital video. In consideration of *Andy Gibson* and the Red Wreck, low water conditions will be taken advantage of and trenches will be sunk into the siltbanks and riverbank where appropriate.

Maritime Heritage Minnesota's completion of the Aitkin Wrecks Project 2015 has added greatly to the knowledge base regarding the Headwaters Mississippi River. In particular, MHM has determined the exact dimensions of *Andy Gibson*'s deck beams at the time of her construction. For contrast, the steamer *Black Cloud* Wreck (launched in 1864) in the Trinity River in Texas is roughly the same size as *Andy Gibson*. The *Black Cloud*'s deck beams measured 3 inches sided by 8 inches molded. *Andy Gibson*'s 2 by 3 inch construction clearly indicates she is more lightly built than *Black Cloud*. *Black Cloud*'s 4-foot draft (Adams 1980, 1, 6) was significantly deeper than *Andy Gibson*'s 2-foot draft, a needed difference for the shallow Headwaters Mississippi River. Also, MHM has determined that the Red Mill Wreck has at least one scow end, a rare attribute for a Minnesota wreck. The data collected during this work allowed MHM to expand and augment our collective knowledge of Minnesota's finite submerged and maritime cultural resources. The determination that the Red Mill Wreck has at least one scow end – that the wreck is probably either a wanigan or barge – further highlights Minnesota's rich Headwaters Mississippi River nautical and maritime history in terms of the diversity of acknowledged archaeological sites. With further research, the Headwaters Mississippi River will continue to provide Minnesotans with a rich and fascinating story surrounding our shared maritime history, riverine transportation, and waterborne commerce.

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